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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,845	01/22/2002	Jeffrey D. Jordan	LAR 16307-1-SB	6048

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
LANGLEY RESEARCH CENTER  
MAIL STOP 141  
HAMPTON, VA 23681-2199

EXAMINER
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NGUYEN, CAM N

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Applicant(s)	JORDAN ET AL.	
	Examiner	Cam N. Nguyen	Art Unit 1754

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05/19/06 (an amendment & T.D.).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5-11 and 17-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-11, & 17-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### **Response to Amendment**

1. Applicants' amendment and remarks, filed May 19, 2006, has been made of record and entered. Claims 2, 4, & 12-16 have been canceled. Claims 3, 6, & 17 have been amended.

Claims 1, 3, 5-11, & 17-25 are currently pending and under consideration.

### **Terminal Disclaimer**

2. The terminal disclaimer filed on 5/19/06 does not comply with 37 CFR 1.321(b) and/or (c) because: only 77% interest. A 100% interest is needed.

### **Double Patenting**

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 3, 5-11, & 17-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 &

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11-16 of copending Application No. 10/342,660 "copending '660". Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reason(s).

The major difference between the claimed catalyst and the catalyst of the copending '660, is that the catalyst of the copending '660 includes an additional "ruthenium" metal component, as a reducing species.

It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have added such known ruthenium metal component to the instant catalyst in order to make an improved and effective catalyst because "ruthenium" is known as useful catalytically active catalyst component.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**Claim Rejections - 35 USC § 102(b)**

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 5-11, & 17-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Maier (US Pat. 6,121,187).

Maier discloses an amorphous mixed oxides, wherein at least 50% of said mixed oxides consists of one or a mixture of oxides of titanium, silicon, alumina or zirconium,

and up to 50% by weight of consists of one or more metal oxides selected from a group of elements including Sn, Hf, La, Ce, etc. and the claimed promoters, i.e., Fe, Co, Ni (see col. 14, claims 1 & 3). The mixed oxides additionally contains up to 5% by weight of at least one of the elements Pt, Rh, Ir, Os, Ru, Re, Ag, Au, Cu, Ni, Pd, Co in highly dispersed form in a metallic or non-metallic state (see col. 14, claim 4).

Regarding claims 1, 3, 5-6, 17-20, the disclosed noble metal and the first, second, and third metal oxides concentrations are falling within the claimed ranges (see above), thus the claims are met.

With respect to the claimed first, second, and third metal oxide mass ratio, it is inherent that the mass ratio of these metal oxides would be the same as being claimed in view of the same metal concentrations of these metal oxides disclosed above.

Regarding claims 7-11 & 21-25, the claims are met by the teaching of the reference in view of the teaching that the disclosed catalyst is suitable for used in various reactions including the claimed reactions (see Maier at col. 5, ln 41-67).

There is no patentable distinction seen between the claimed catalyst and that disclosed by Maier. Thus, the claims are anticipated by the reference.

### **Response to Arguments**

7. Applicants' amendment/response filed on May 19, 2006 has been fully reconsidered, but not deemed persuasive in view of the new ground of rejection(s) above.

**Conclusion**


8. Claims 1, 3, 5-11, & 17-25 are pending. Claims 1, 3, 5-11, & 17-25 are rejected.

No claims are allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M, W, R, & F, 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen/cnn   
June 09, 2006

  
CAM N. NGUYEN  
PRIMARY EXAMINER

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